

In the Claims

Claims 2-3, 5-6, 10-11, 13-14, 19-20, 22-23 and 26-31 have been cancelled without prejudice.

Claims 1, 4, 9, 12, 17, 21 and 32 have been amended and Claims 33-44 have been added as follows:

1. (Currently Amended) An electrophoretic inorganic porous material, comprising:
an ~~inorganic-separating-media~~ alkali borosilicate glass that has a plurality of pores therein through
which molecules migrate during an electrophoresis process; and
said alkali borosilicate glass is coated with a non-charged coating material.

Claims 2-3 (Cancelled)

4. (Currently Amended) The electrophoretic inorganic porous material of Claim 1, wherein
said ~~porous glass~~ alkali borosilicate glass has pores with an average pore diameter greater than 100 angstroms.

Claims 5-6 (Cancelled)

7. (Original) The electrophoretic inorganic porous material of Claim 1, wherein said molecules are
proteins.

8. (Original) The electrophoretic inorganic porous material of Claim 1, wherein said molecules are
nucleic acids.

9. (Currently Amended) An electrophoresis apparatus, comprising:
a power supply including a positive electrode and a negative electrode; and
a buffer tank capable of supporting an ~~inorganic-separating-media~~ that alkali borosilicate glass which
is coated with a non-charged coating material and which has a plurality of pores located therein, said buffer
tank further capable of containing a buffer that covers the ~~inorganic-separating-media~~ alkali borosilicate glass
such that molecules migrate within at least a portion of the plurality of pores when power is applied to the
positive electrode and the negative electrode both of which are immersed in the buffer and located at opposite
ends of the ~~inorganic-separating-media~~ alkali borosilicate glass.

Claim 10-11 (Cancelled)

12. (Currently Amended) The electrophoresis apparatus of Claim ~~10~~ 9, wherein said ~~porous glass~~ alkali borosilicate glass has pores with an average pore diameter greater than 100 angstroms.

Claims 13-14 (Cancelled)

15. (Original) The electrophoresis apparatus of Claim 9, wherein said molecules are proteins.

16. (Original) The electrophoresis apparatus of Claim 9, wherein said molecules are nucleic acids.

17. (Currently Amended) A method for analyzing a biological sample, said method comprising the steps of:

~~placing, into an electrophoresis apparatus, an inorganic separating media~~ alkali borosilicate glass which is coated with a non-charged coating material and which has a plurality of pores located therein ~~into an electrophoresis apparatus;~~

~~pouring a buffer into the electrophoresis apparatus to immerse the inorganic separating media~~ alkali borosilicate glass;

~~inserting the biological sample into the inorganic separating media~~ alkali borosilicate glass; and

~~applying power to the inorganic separating media~~ alkali borosilicate glass such that molecules of the biological sample migrate within a at least a portion of the plurality of pores formed within the ~~inorganic separating media~~ alkali borosilicate glass.

18. (Original) The method of Claim 17, further comprising the steps of:

staining the biological sample; and

photographing the inorganic separating media to have a record of the migrated molecules of the biological sample.

Claims 19-20 (Cancelled)

21. (Currently Amended) The method of Claim ~~19~~ 17, wherein said ~~porous glass~~ alkali borosilicate glass has pores with an average pore diameter greater than 100 angstroms.

Claims 22-23 (Cancelled)

24. (Original) The method of Claim 17, wherein said molecules are proteins.

25. (Original) The method of Claim 17, wherein said molecules are nucleic acids.

Claims 26-31 (Cancelled)

32. (Currently Amended) The method of Claim 17, wherein said ~~inorganic separating media~~ alkali borosilicate glass is a component in a microscale total analysis system.

33. (New) The electrophoretic inorganic porous material of Claim 1, wherein said non-charged coating material is polyethylene glycol.

34. (New) An electrophoretic inorganic porous material, comprising:
a sol gel monolith that has pores formed therein which have an average diameter in the range of 30-400 angstroms through which molecules migrate during an electrophoresis process.

35. (New) The electrophoretic inorganic porous material of Claim 34, wherein said molecules are proteins.

36. (New) The electrophoretic inorganic porous material of Claim 34, wherein said molecules are nucleic acids.

37. (New) The electrophoretic inorganic porous material of Claim 34, wherein said sol gel monolith is made by using an acid catalyzed hydrolysis process.

38. (New) An electrophoresis apparatus, comprising:
a power supply including a positive electrode and a negative electrode; and
a buffer tank capable of supporting a sol gel monolith that has pores formed therein which have an average diameter in the range of 30-400 angstroms, said buffer tank further capable of containing a buffer that covers the sol gel monolith such that molecules migrate within at least a portion of the plurality of pores when power is applied to the positive electrode and the negative electrode both of which are immersed in the buffer and located at opposite ends of the sol gel monolith.

39. (New) The electrophoresis apparatus of Claim 38, wherein said molecules are proteins or nucleic acids.

40. (New) The electrophoresis apparatus of Claim 38, wherein said sol gel monolith is made by using an acid catalyzed hydrolysis process.

41. (New) A method for analyzing a biological sample, said method comprising the steps of:
placing a sol gel monolith that has pores formed therein which have an average diameter in the range of 30-400 angstroms into an electrophoresis apparatus;
pouring a buffer into the electrophoresis apparatus to immerse the sol gel monolith;
inserting the biological sample into the sol gel monolith; and
applying power to the sol gel monolith such that molecules of the biological sample migrate within at least a portion of the plurality of pores formed within the sol gel monolith.

42. (New) The method of Claim 41, further comprising the steps of:
staining the biological sample; and
photographing the sol gel monolith to have a record of the migrated molecules of the biological sample.

43. (New) The method of Claim 41, wherein said molecules are proteins or nucleic acids.

44. (New) The method of Claim 41, wherein said sol gel monolith is made by using an acid catalyzed hydrolysis process.